## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/18639 CLASSIFICATION OF SUBJECT MATTER IPC(7) H04R 3/00,5/00,27/00; G06F 17/00; G06F 17/60 US CL 381/77,79,82; 700/94;705/43,35 According to International Patent Classification (IPC) or to both national classification and IPC FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 381/77,79,82; 700/94; Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Category \* US 2002/0101360 A1 (SCHRAGE) 01 August 2002 (01.08.2002), Abstract, (page 2, Relevant to claim No. X paragraphs 0024-0030) (page 3, paragraphs 0056-0057) (paragraphs 0099-0101) 1,2,4-6,10-13,15-30 US 6,229,899 B1 (NORRIS et al.) 08 May 2001 (08.05.2001), column 4, line 66-column Y 7-9 US 6,771,785 B2 (POMPEI) 03 August 2004 (04.08.2004), abstract, Figures 1 and 2 Y 14 US 5,662,190 A (ABE) 02 September 1997 (02.09.1997) A US 2001/0007591 A1 (POMPEI) 12 July 2001 (12.07.2001) A US 6,666,374 B1 (GREEN et al.) 23 December 2003 (23.12.2003), columns 4-6 Α specifically column 5, line 52-column 6, line 6 EP 0 973 152 A2 (MASSACHUSETTS INSTITUTE OF TECHNOLOGY) 19 January Α 2000 (19.01.2000), abstract, paragraphs 0007-0012) Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "A" document defining the general state of the art which is not considered to be of particular relevance "B" "X" earlier application or patent published on or after the international filing document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "T." document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination "O" document referring to an oral disclosure, use, exhibition or other means being obvious to a person skilled in the art **"&**" document published prior to the international filing date but later than the document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 15 February 2005 (15.02.2005) 18 MAR Name and mailing address of the ISA/US uthorized officer Mail Stop PCT, Attn: ISA/US Commissioner for Patents Sinh Tran P.O. Box 1450 Alexandria, Virginia 22313-1450 Telephone No. 703-305-4700 Facsimile No. (703) 305-3230

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